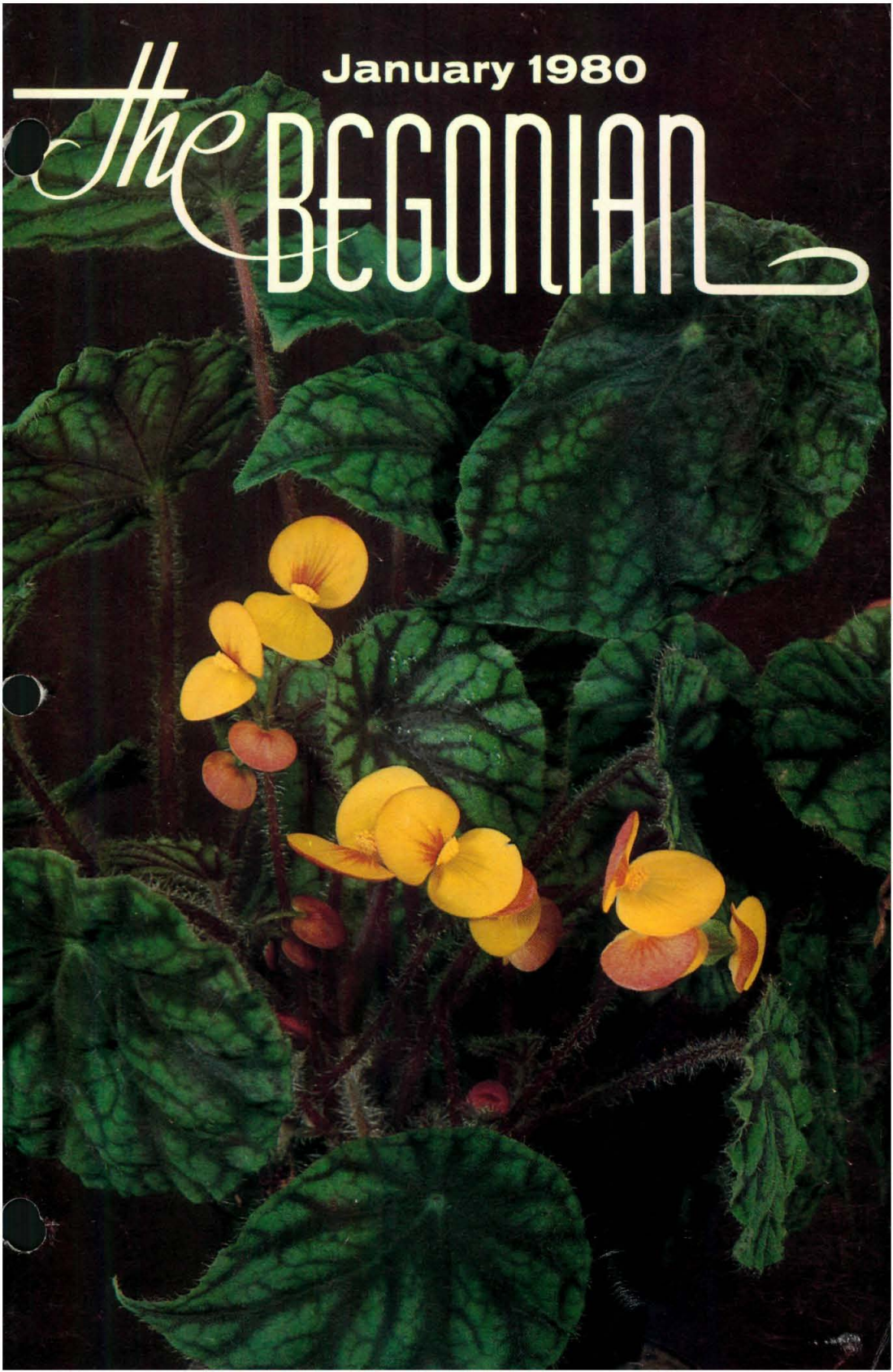
January 1980

The BEGONIAN



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EDITORS—Karen Bartholomew and Chuck Anderson, 826 Santa Rita Ave., Los Altos, CA 94022. 415 948-5345 (evenings).

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AMERICAN BEGONIA SOCIETY

Founded January 1932 by Herbert P. Dyckman

Aims and purposes

TO stimulate and promote interest in begonias and other shade-loving plants.

TO encourage the introduction and development of new types of these plants.

TO standardize the nomenclature of begonias.

TO gather and publish information in regard to kinds, propagation and culture of begonias and companion plants.

TO issue a bulletin which will be mailed to all members of the society.

TO bring into friendly contact all who love and grow begonias.

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See inside back cover

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INSIDE/ *January 1980*

THE COVER: An unidentified species from West Africa which J. Doorenbos considers "the most beautiful species in existence." See his overview of West African yellow-flowering species on page 12.

NOTES/ *From the editors*

Some members justifiably are upset by the early voting deadline—Dec. 1—imposed in the election to revise the ABS Constitution and Bylaws. Many did not receive the November *Begonian* in time to meet the deadline.

It's a situation both regrettable and unavoidable. Conduct of elections is dictated in such detail by the current Constitution and Bylaws that even voting deadlines are beyond the control of ABS directors.

As a mater of fact, a strict interpretation of the Constitution would have required a Nov. 15 voting deadline. The absurdity of such a deadline on a ballot being mailed just a few days earlier persuaded us to stretch matters by two weeks.

This decision was made at the last minute as the ballot was about to go to press after quick consultation with President Nate Randall, who concurred. There wasn't time for a board meeting on the question.

At the board's November meeting, though, much concern was voiced over the fairness of such an election. The board agreed in the end that it could not extend the deadline further because board members could not legally take action that defies the society's governing document.

One thing was decided, however: Future elections will be conducted in such a manner as to permit all members easy and timely participation, even if it takes such an expensive alternative as first-class mail.

Among the revisions being voted upon, by the way, was one to permit more time after the ABS annual meeting in which to hold the election.

□

Got a deal for you:

Remember the October and November covers of *The Begonian*, those uncommonly handsome Dennis Maley photos of *B.* 'Ballerina' and unidentified Brazil species No. 2?

We'll send you a copy of each cover, suitable for framing (although they *do* contain *The Begonian* logos), at no charge. All you have to do is send us one of the following for possible publication:

1. A vertical format color slide of a

Please turn to page 7

Hybridizer Frank Reinelt dies at 78

Frank Reinelt, a horticulturally gifted Czech emigre who sought and found success in America by becoming its foremost hybridizer of tuberous begonias, is dead at 78.

Mr. Reinelt, an honorary life member of ABS who originated the spectacular Pacific strain of tuberous begonias, died in Las Vegas, Nev., on Dec. 3. Services and entombment were in Sacramento, Calif.

Thousands of people who didn't know Mr. Reinelt personally remember his legacy in the form it took for many years at the Vetterle & Reinelt Nursery in Capitola, Calif.—long rows of his cultivars and a blanket of them hanging from the ceiling. Visitors were left in awe at the sight.

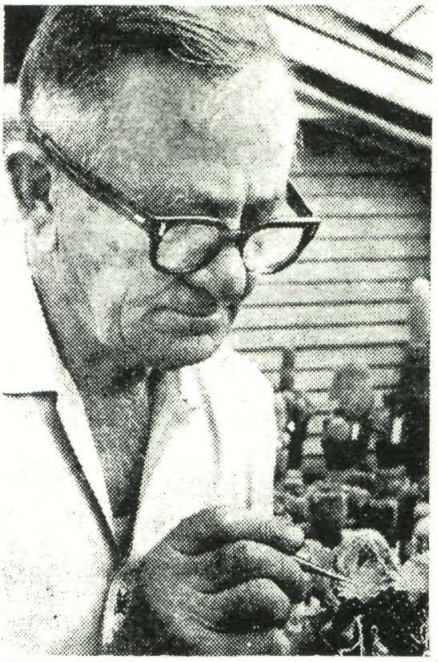
Mr. Reinelt was "king of American hybridizers, the unsung man of the begonia business," said Clarence Hall of Sacramento, past president of ABS. Elsa Uppman Knoll, retired garden editor of *Sunset* magazine, recalled him as "a great man."

During his 34 years of hybridizing, Mr. Reinelt developed the classic roseform flower shape and ruffled and picotee flowers. He also expanded the range of flower color and size.

He left Capitola in 1969 to move to a drier climate for his health. The nursery later was sold to the wholesale firm of Shasta Nurseries, which moved it south to Watsonville and later closed its retail operations.

Many of Mr. Reinelt's breeding plants are now grown at Carmel Valley Begonia Gardens in Carmel Valley, Calif., where owner Noel Hanssens is carrying on Mr. Reinelt's hybridizing.

Photo/Courtesy Santa Cruz Sentinel



Frank Reinelt

Mr. Reinelt was born on Christmas in 1900 in Czechoslovakia. Even as a boy, he noticed tuberous begonias in a private garden near his home, he once told an ABS convention.

He attended gardening school in Brno, Moravia, and at 22 became head gardener to the queen of Romania. But his ambition was to move to California to work with Luther Burbank, whose plant breeding he had read about in a magazine.

Burbank died, however, before Mr. Reinelt arrived, so he found work in Los Altos, Calif., as the gardener on the estate of an attorney.

In 1934, Vetterle Bros., an established Capitola nursery, agreed to permit Mr. Reinelt to plant an acre

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Easy to grow: year-round B. 'Universe'

Elda Haring

Photo/Walter Haring

***B.* 'Universe'**

B. 'Universe' is one of my favorite rhizomatous begonias. It is easy to grow and beautiful at all seasons. Originating in 1965 from a cross of *B.* 'Norah Bedson' and *B.* 'Leslie Lynn' by Thelma O'Reilly, ABS co-director of nomenclature, *B.* 'Universe' won the coveted Alfred D. Robinson Gold Medal in 1974 and trophy for best new introduction at the 1969 ABS convention.

Leaves are of medium size, slightly star-shaped, the margin edged with small white hairs, the surface smooth. The background is olive-green heavily marbled reddish-brown. The underside of the leaf is also heavily marbled and the stem is red-dotted with tiny white hairs.

Leaf stems on a specimen plant will measure 10 to 12 inches long. White flowers held high over the foliage appear in spring. This handsome begonia resulted from Thelma's first venture into hybridizing. I first acquired it from Merry Gardens in Maine. Fortunately it is now so popular that it is available from many commercial growers.

Having experimented over the years using various packaged potting mixes, soilless mixes and mixes containing soil, peat moss, and builder's sand with added nutrients, I feel sure you can grow *B.* 'Universe' to perfection wherever you live and whatever your favorite potting mix.

This begonia grows beautifully under the bench on the floor of my greenhouse where it gets winter sun in the morning. The glass of my greenhouse starts at the ground level, giving me more growing space.

It is also perfectly happy on the sunporch in a southeast window. In both locations the marbling of the leaf is quite pronounced. However, under fluorescent lights in the cellar they are almost completely chocolate brown and the plant also grows in a more compact fashion.

Rhizome and leaf stem cuttings root readily spring and summer but are slow in winter when most rhizomatous types are resting. I like to propagate this one by using the cone leaf method described in *The Thompson Begonia Guide*—by cutting a circle at the sinus, forming the leaf into a loose cone, with edges even, pushing this cone down into the propagating mix. Little plantlets form in the middle, giving a full, well-rounded plant.

Usually I use a squat 3-inch pot for this method and when the new plantlets show give it constant feeding with Schultz Instant Liquid Fertilizer until

Please turn to page 24

A prolific writer and popular lecturer, Elda Haring has been writing for The Begonian *for 20 years. This is the latest in her series on easy-to-grow begonias. Elda lives at Box 236, Flat Rock, NC 28731.*

How to protect begonias in cold weather

Robert B. Hamm

In cold winter areas, one concern hits every begonia grower with a plant room, sun porch, or greenhouse: How to keep heating bills down.

No one wants to give up his or her favorite, but for many the continuing rise in fuel costs means some way must be found to cut back.

A simple way is to lower the minimum temperature in the greenhouse. How low to go? This depends on how fast you want your plants to grow and on whether your goal is simply keeping them alive.

For a growing, blooming greenhouse of begonias, the temperature should not be allowed to drop below 55 degrees. Even at this temperature, many plants will slow down appreciably. Many, however, will continue to grow and bloom.

If day temperatures are always higher than 55, you should encounter no problems.

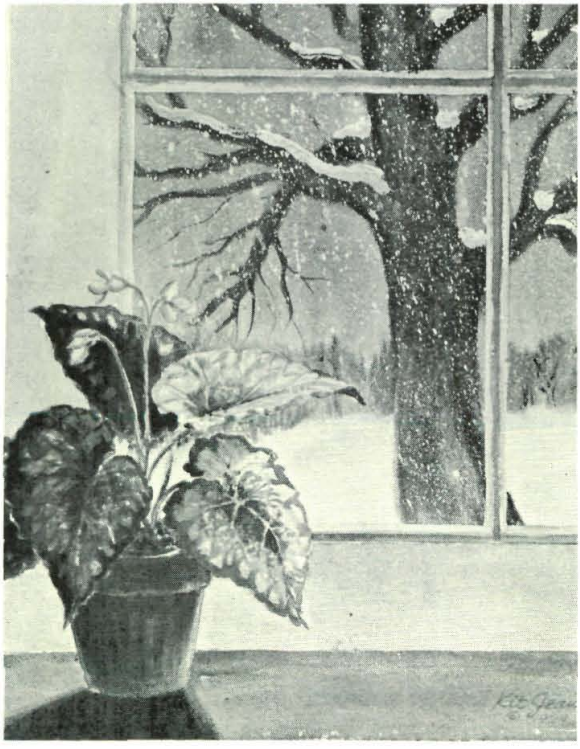
But if you want to keep your plants just barely alive—and you don't mind shortage of bloom and loss of leaves on some plants—a temperature as low as 45 degrees will work.

You *can* go as low as 35 degrees, but beware: Not all begonias will tolerate prolonged periods this chilly. Also, special care is required at low temperatures:

1. Keep plants on the dry side be-

Robert B. Hamm, director of Southwest Begonia Growers Association, recently moved to 3817 Jo Ann 15-D, Wichita Falls, TX 76306. This article is adapted from one published in the association's newsletter.

Painting/Kit Jeans



With proper care, rex begonia makes it through cold winter, brightening room at same time. ABS author-artist Kit Jeans painted the watercolor.

cause rot develops quickly in cold temperatures.

2. Never let foliage stay wet. Mildew will have a field day.

3. If you are just "holding" the plants, do not feed them. You will just burn them because they aren't growing and cannot use the fertilizer.

4. Consider a preventive fungicide spray program with a product containing benomyl.

An often-overlooked side effect of low temperature is that plants can stand—and in many cases require—more sunlight than under normal conditions to maintain compact growth. Increased sunlight also will help offset the effects of the cold on growth rate and bloom.

So, if your heating bills are spiraling out of sight, lower the thermostat. You don't have to lose your plants.

If you have a few very cold-sensitive plants, build a tent of plastic film and put a heating cable inside. Heating a small area to 70 degrees is a lot cheaper than heating the whole greenhouse just for a few fussy plants.

This works very well on such sensitive ones as *B.* 'Wanda', *B.* 'Exotica', *B. versicolor,* and the other bowl types which often won't stand low temperatures.

More editors' notes

Continued from page 3

begonia that's crisp and clear with no background distractions.

2. A manuscript of an article about a begonia or your collection or your growing techniques or anything else related to begonias.

3. One or more black-and-white photos or illustrations of begonias which we can file in our new archive of *Begonian* photos for future use.

4. A letter suggesting story ideas, photo ideas, illustrations, or other subject matter for *The Begonian.* What do *you* want to read about, anyway?

□

You won't find Seed Fund listings this month or next. Look again in March. But get yourself the December issue of *Flower and Garden* for a solid look at begonia propagation by Ed and Millie Thompson.

□

Branch newsletter editors, please note: we'd appreciate your putting us on your mailing list if we aren't already. We find good items for ABS News plus glimmerings of article ideas in the newsletters we already receive.

□

Alice Clark, the grand dame of the begonia world and an inspiration to us all, was mentioned prominently in a recent society column of the *Los Angeles Times.* In an account of a magnificent tea party to celebrate the 70th anniversary of *California Garden,* magazine of San Diego Floral Association, the *Times* reported:

"Nearly everyone who has ever had a hand in transforming San Diego from its original chaparral and sage to subtropical garden paradise has been involved with the association. Alice Clark, the magazine's editor emeritus whose origins with the association go back to 1915, was at the party . . ."

□

The new year is here, but there's still time to order your 1980 calendar, *Beaucoup Begonias.* Send $3.95 plus $1 postage and handling to Kit Jeans Begonia Calendar, Rt. 1 Box 319, New Johnsonville, TN 37134. The ABS benefits. —C.A. & K.B.

Collecting begonias in Papua New Guinea

W. Scott Hoover

During October, November, and December 1977 and January 1978, I made a field expedition to Papua New Guinea to collect and study species of the Begoniaceae in their natural habitat. The abundance and variation of *Begonia* was very impressive and will undoubtedly prove to be difficult taxonomically.

In the four months spent in New Guinea, I made 86 collections of the Begoniaceae, most of which never have been in cultivation before. Live cuttings and some seed were sent back from virtually every collection made, though the rate of survival and thus introduction of the plants unfortunately was very low.

I must remark on the exquisite beauty of some New Guinea *Begonia*: The flowers on several of the early collections were nearly 2 inches across and the later collections from the Frieda River are probably all new species.

Table 1 summarizes the work accomplished on this field expedition, which was supported partly by the American Begonia Society and several members, including Rudolf Ziesenhenne, Jack Golding, and the Minnesota branch. Non-*Begonia* collections were made as well as several other kinds of studies, each of which could be pursued in much greater detail.

The Frieda River area was the most interesting botanically and from the standpoint of experience, for the study I conducted had economic implications. In this remote area of the W. Sepik, 23 new species of *Begonia* were collected. It is very likely that all the collections of *Begonia* from this area are undescribed.

In certain instances, I observed the species only once and the population consisted of less than 20 individuals. In several cases, only one or a couple of individuals were observed in the entire three weeks of collecting in the 15-square-mile area covered.

It will be interesting as well to learn about other general collections I made, particularly in the Melastomaceae and Zingiberaceae.

My principal reason for suggesting that species from the Frieda River area have never been described before is that I did not observe any herbarium material of the collections in either the Arnold Arboretum or Lae herbarium; Theodore Henty of the Department of Forests of Papua New Guinea had collected a few of the species I found.

Aside from the lack of previous herbarium specimens of these collections, several other morphological characteristics seemed interesting. These include the shape of the leaves and the structure of the influorescence.

The species from the Frieda Mountains were very different in leaf shape and pubescence than the species I collected in other areas of Papua New Guinea. The distinction of the influorescence was based primarily on the relative shortness of the peduncle and the fact that virtually every species from the Frieda River had a mutant, reflexed, or similarly shaped mature fruit; it appeared that with the maturation of the fruit came a progressive downward turning of the peduncle so

Scott Hoover of Coronation Farm, Green River Road, Williamstown, MA 01267, is a botanist and plant explorer. ABS is helping finance his latest expedition to South America (see page 25).

Photos/S. Hoover, M. Mundell

Scott Hoover

the stigmas eventually would point down and drop off.

Whether the above-mentioned characters have any taxonomic significance remains to be seen. I do recall Dr. Lyman Smith saying that his principal characteristic for developing a world key for *Begonia* is leaf shape.

For me to make the collections I did, considerable walking was involved. The total number of miles hiked for this expedition I estimated to be 187, 91 of which were on bush tracks, ridge tops, mountainsides, and along stream margins. The additional 96 miles of footloose trafficking took place on dirt roads, through garden clearings, or along wide, smooth trails. Usually several miles of hiking would be involved before I could get to the area in which I wanted to search for *Begonia*. Other times a desolate, lonely road would be my guide and companion.

The habitats, stem characteristics, and relative light of the *Begonia* I collected varied, but it was possible to categorize these characteristics. The four basic habitats I encountered include stream margins, undisturbed forest (either primary forest or advanced secondary forest), disturbed forest (forest in early stages of succession), and roadside. Often I would collect a species in several different habitats, but usually the collections were limited to one habitat.

Of the 86 collections of *Begonia* I made, 43 were made along the stream margin habitat, 24 collections came from undisturbed forest habitats, 8 were made in disturbed areas, and 6 collections were from roadside locations.

The stem characteristics of *Begonia* are quite diverse and usually botanists refer to the New Guinea species as herbs. With the number of collections made on this field expedition, I found it possible to define six major types of stems. Finding begonias with stiff, wood-like bases, I called them shrubs, even though the plants would be only 18 to 24 inches high. The stiff base of the stem suggested the presence of lignified tissue, but only further analysis will determine if this is the case.

The categories I established for stem types of Papua New Guinea *Begonia* are: herbs, few-branched shrubs, low shrubs, spreading shrubs, many-branched shrubs, and vines. Many of the collections included plants that could be readily distinguished as "species." At least there were many collections in which the morphological characteristics were stable enough to make recognition relatively simple, as opposed to other "species" where the morphological characters were very unstable.

Of the 64 "species" of *Begonia* collected, I classified 19 of them as herbs, 13 as few-branched shrubs, 12 as low shrubs, 9 as vines, 7 as spreading shrubs, and 4 as many-branched shrubs. The relative light found at each collection site is an estimation based on what appeared to be the situation. The three categories established for this environmental factor are: sun, some sun, and low light, of which the collections in respective or-

Please turn to page 22

New book: how tuberous hybrids developed

Tuberous Begonias: Origin and Development

By J. Haegeman.

J. Cramer Verlag, Germany, 1979. 290 pages. 120 black-and-white photographs and drawings. DM 64 or approximately $34.

The first tuberous begonias were introduced to the public about 130 years ago. Starting with perhaps seven species from the Andes, hybridizing efforts have produced the remarkable range of color, size, and blossom types we enjoy today.

The wild species were crossed and recombined and additional species were introduced until there is a complex heritage that is virtually irreplaceable. Perhaps a hundred million tuberous begonias are put on the market yearly, 70-80% coming from nurseries in the vicinity of Ghent, Belgium.

Dr. J. Haegeman researched numerous sources, all listed in a 33-page list of references, to trace the development of the modern hybrids in their many forms. Literature on the tuberous begonia is very limited and much of this material comes from growers' reports, catalogs and personal communications.

The earliest hybrids on the market came from the Veitch Nursery, and early hybridizers concentrated on producing larger and stronger flowers than the original species. Later efforts were aimed at producing the various forms and broadening the range of blossom color.

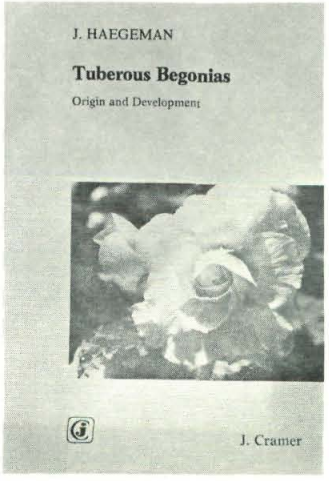
After early chapters devoted to background and early cultivars, the book devotes a chapter to each of the commercially recognized groups so it is possible to read about the pendula types and their development, or the work on the fimbriata group.

In reading through the chronologies of all 15 types, I was reminded of the "begats" of Genesis, but these sections can be skimmed lightly until the information is needed.

The entire book is illustrated with excellent historical drawings and each flower type is depicted.

After the chapters devoted to the individual groups there is a section with biographical sketches of the most important hybridizers, nurserymen, and authors. Photographs of some of the pioneers in the field are included.

Although U.S. production of tuberous begonias is the second largest in the world, there is very little space devoted to American efforts. Practically all the production is carried out at three nurseries in California, and it is



Phyllis Bates, who is trained as a chemist, is a former editor of The Begonian. *She now edits LAIFS, journal of the Los Angeles International Fern Society. She and husband Ed live at 554 Arden Dr., Encinitas, CA 92024.*

about one-tenth of that of the Ghent area. The work of Frank Reinelt, Worth Brown, and Leslie Woodriff is noted.

The book may be directed toward the hybridizer and nurseryman, but there is plenty of good reading for the begonia hobbyist. It would be possible for the hobbyist to recreate some of the early crosses.

Some of the work from which the book is derived was done at the Institute for Ornamental Plant Growing at Melle, Belgium, where Haegeman now works.

The text appears without italics and in the instances where italics would normally appear the words are underlined. It helps to remember this when reading the discussion on nomenclature. This section is helpful to understanding *Begonia* nomenclature in general and the classification in the book in particular.

Dr. Haegeman also has prepared a list of the tuberous cultivars he located in his research. *The Check List of Tuberous Begonia Names*, published by the same firm, sells for about $18.

Information and orders can be obtained from Lubrecht and Cramer, RFD 1, Box 227, Montecello, NY 12701. Prices of both volumes will depend upon the money exchange rate at the time of purchase.

—Phyllis Bates

More Frank Reinelt

Continued from page 4

in begonia seed. The results were so impressive that a partnership emerged. Vetterle & Reinelt undertook to develop new forms not only of tuberous begonias but also of delphiniums and polyanthus primroses, which also interested Mr. Reinelt.

One reason Mr. Reinelt's impact on the plant world was so great was that he worked with a firm vision of commercial possibilities. As a result, his creations came to the attention of many people outside begonia hobbyist circles.

By making carefully planned crosses and culling the resultant seedlings rigorously, Mr. Reinelt changed the hybrid tuberous begonia from a plant with poorly formed double flowers 3-6 inches across to one with perfectly shaped blooms as much as 10 inches across.

The *Santa Cruz Sentinel* reported: "Reinelt's success as a hybridizer is a gift. Only a few possess the inquisitive nature and power of selection that can spot desired quality at a glance. Luther Burbank had this power of selection.

"Mrs. Reinelt says, 'He can walk down a row of begonias, marking those for selection as he goes, and I must almost run to keep up with him.' "

Over the decades, Mr. Reinelt's work won numerous honors, including the ABS Alfred D. Robinson medal in 1949 for the hanging basket cultivar *B.* 'Golden West'. Other honors included the coveted Veitch gold medal of the Royal Horticultural Society of Great Britain and the Thomas Roland gold medal of Massachusetts Horticultural Society.

Mr. Reinelt is survived by his widow, Elaine, of Las Vegas; a son, Frank Jr., of Las Vegas; a daughter, Aphra Katsev, of Portland, Ore., and two grandchildren.

—Chuck Anderson

The yellow-flowering species from Africa

J. Doorenbos

(First of two articles)

The inexhaustible diversity in habit and leaf shape among species of *Begonia* makes them a perennial source of interest. In view of these riches, the variation in flowers is disappointing: in most species the flowers are rather small, and white or pink. Bright colors are rare, particularly yellow and orange.

Among hundreds of American species the number of yellow-flowered ones can be counted on the fingers of one hand. Of these, only *Begonia pearcei* is cultivated. Among Asiatic species, *B. xanthina* comes to mind, although there are others. The only region where yellow-flowering begonias abound is the Guinea forest region in West Africa.

In 1895 Warburg grouped these yellow-flowering African species in the sections Loasibegonia and Scutobegonia. The differences between these two sections, mainly concerning the female flowers, are not consistent, however. Since some species are hard to classify, moreover, it would not surprise me if a future taxonomic study revealed that the two sections should be united to one, which would have to be called Loasibegonia because this is the oldest name.

The species of the two sections mentioned are mostly stemless or creeping, but some have an underground rhizome which sends up stems to 2 feet high. These upright species will be ignored here, although a few have yellow flowers.

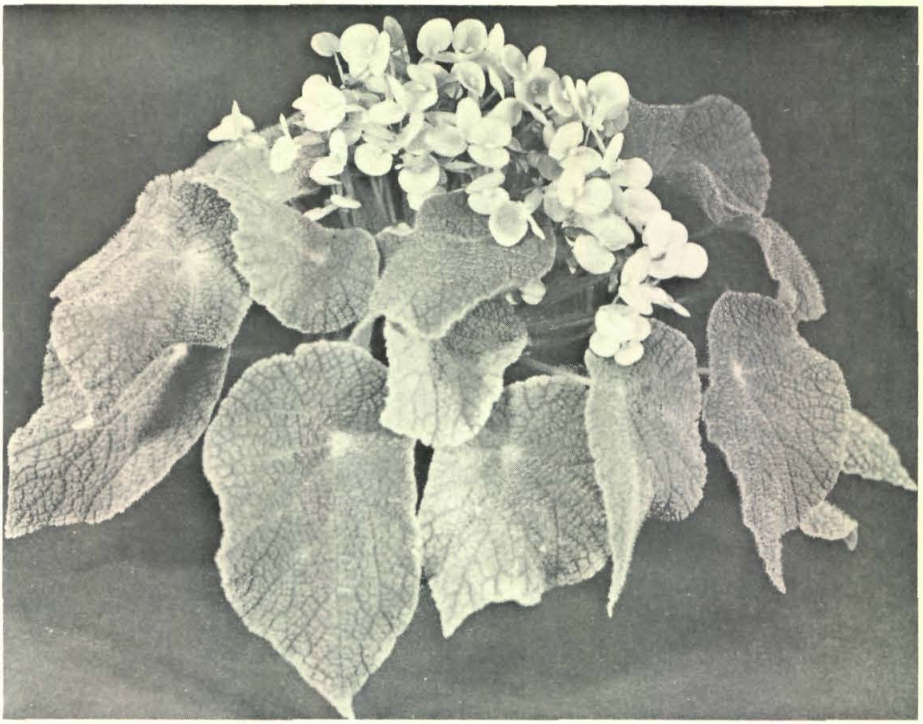
The prostrate species have leaves that are usually palmately veined and often peltate, sometimes bullate, and usually hairy or at least ciliate, although there are also glabrous species. The influorescences have few flowers, often with two male flowers and one female flower, both types having two tepals. The fruits are very different in shape, smooth or with ribs, wings or horns, and do not open.

About 50 species have been assigned to Scutobegonia or Loasibegonia, but many of these are synonymous. Hallé puts the number of good species at about 25. On the other hand, there are, no doubt, several species which still have to be described.

Hallé, who studied them in Gabon, observed that the species of these sections are adapted to the shade of the dense primary forest. Once the vegetation is disturbed, these begonias are at a disadvantage and other plants (among them begonias of the section Tetraphila, e.g. *B. squamulosa*) take over. For this reason, many of the species under discussion are becoming rare, and some may be in danger of extinction.

The *Begonia* collection at Wageningen University now includes about 18 species of Scutobegonia and Loasibegonia, of which at least 11 have yellow flowers. (Some have not yet flowered.) All but three of these were collected by the staff of the Department of Plant Taxonomy of the university, who specialize in the flora of Africa and have traveled widely on that continent. On

Dr. Jan Doorenbos is professor of horticulture at Agricultural University, Wageningen, The Netherlands. He specializes in the study of Begonia *and has written several dozen artitcles on the genus, many for* The Begonian.



***B. staudtii* Gilg var. *dispersipilosa* Irmsch.**

a recent trip to Gabon, Dr. J. J. F. E. de Wilde and Dr. F. J. Breteler paid particular attention to *Begonia* and made as many as 36 collections of living material, nearly all of which survive in our greenhouses.

In this series of two articles, I intend to discuss the horticultural merits of nine identified and one unidentified yellow-flowering species. It is not meant to be a taxonomic study; the identifications are preliminary and synonyms will not be discussed.

□

It seems suitable to start with the species on the cover although I must confess I do not know its name. We found it among the collections of living plants of the late Dr. Edgar Irmscher. There is a rumor that he described and named it, but so far we have not succeeded in tracing this description, and I feel fairly certain that it has not been published.

The plant has a short prostrate rhizome, red pilose petioles, 8-10 nerved, peltate, obliquely ovate, acuminate leaves, ciliate, the upper surface glabrous but for an occasional hair and conspicuously marked with purplish brown along the veins, the under surface pilose on the veins. The peduncles are red, pilose, and long enough to lift the flowers above the leaves. The flowers are fairly large (about 1.2 inches) with golden yellow tepals, the upper one marked with red at the base on the inside and red all over on the outside. The fruits are spindle-shaped with four narrow wings.

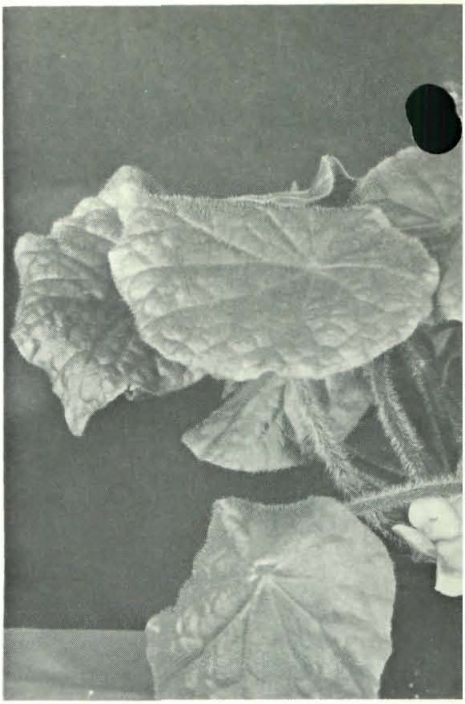
This lovely begonia, to my taste "the fairest of all," should be given terrarium care and kept out of the

sun. Under these conditions it grows readily and flowers continuously.

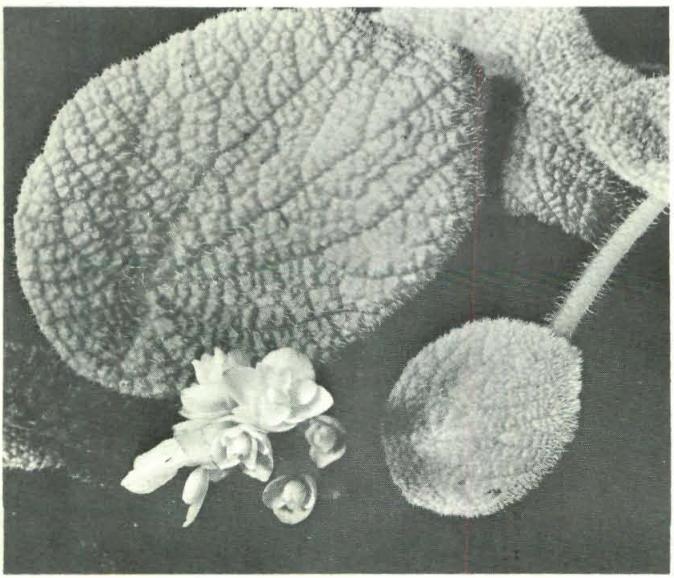
This holds true also for a species with the impressive name *Begonia staudtii* Gilg var. *dispersipilosa* Irmsch. Our plants originally were collected by Dr. De Wilde near Ebolowa in Cameroun. It is very floriferous, but it is difficult to set seed under our conditions. I succeeded only once in obtaining an appreciable quantity of seed, which was distributed through the ABS Seed Fund in September 1966.

B. staudtii var. *dispersipilosa* is stemless. Its leaves are light green, peltate, asymmetrically ovate with deeply sunken veins. Petioles and both sides of the leaves are densely pilose. The peduncles are pilose and as long as the petioles, so that the flowers are above the leaves. These flowers are deep golden yellow. Once we found a seedling with double flowers. The fruits are spindle-shaped with four narrow wings.

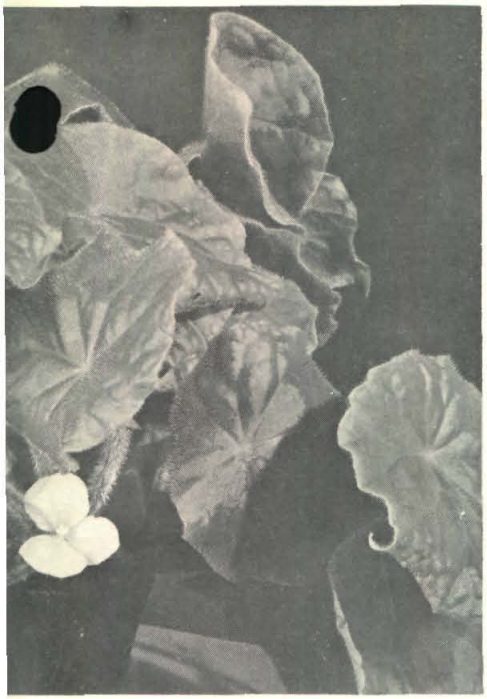
Begonia potamophila Gilg is rather similar to the preceding but the leaves are without sunken veins, and the



***B. potamophila* Gilg. The female flower with three tepals is unusual—the regular number is two.**



***B. staudtii* Gilg var. *dispersipilosa* Irmsch. seedling with double flowers**



flowers are few and borne under the leaves. Occasionally, the female flower has three instead of two tepals (see photograph). The fruits are pilose and have four ribs, of which at least one is drawn out in a short triangular wing. Our plant was collected in Cameroun some 15 years ago, but there is no record where and by whom. There is agreement between Gilg's description and our plants, except that in his material the flowers were not covered by the leaves. So perhaps there exist forms of this species more floriferous and showier than the one cultivated at present.

Begonia ficicola Irmsch. was described in 1954. We received it from the Royal Botanic Gardens at Kew in 1964, and a second time from M. C. G. Middelburg who brought it directly from Cameroun. This species is stemless. The petioles are glabrous but for

Photos/Reyer Jansen

***B. ficicola* Irmsch.**

***B. triflora* Irmsch.**

a few bristles which are brown at their base. The leaves are peltate, obliquely ovate, and strongly bullate, each of the globular protuberances tipped by a long hair. The veins on the underside are set with bristles similar to those on the petiole. The peduncles are long and glabrous. The flowers are large, the tepals golden yellow, slightly reddish at the back. The fruits are spindle-shaped with four ribs (no wings).

Botanists who have seen this species in its original habitat near a waterfall in the river Meme in Cameroun have told me some plants have double flowers. We have not yet seen these in cultivated material, however.

In the past we have crossed *B. ficicola* and *B. staudtii,* to see if the hybrid would be sturdier and less particular in its requirements than the parent species. This was indeed the case, but only to a limited extent. The hybrid, which in other respects was intermediate between the parents, remained a plant for the keen amateur and showed no promise for commercial production.

Begonia triflora Irmsch. was among the material brought back from Gabon by Dr. De Wilde and Dr. Breteler in the fall of 1978. It is as floriferous as *B. staudtii,* but its flowers and leaves are much smaller. It is stemless. The petioles are reddish, slightly pilose; the leaves pelate, asymmetrically ovate with a long tip (acute or acuminate), slightly ciliate but otherwise glabrous, the veins on the underside with scattered hairs. The peduncles are glabrous and shorter than the petioles. The flowers are bright yellow, the upper tepal marked with reddish brown at the base and also brownish at the back. The fruits are spindle-shaped with four narrow wings.

Under our conditions the leaves are up to 3 inches long (tip included) but Dr. De Wilde told me that under natural conditions this is usually a dwarf species with smaller leaves and much shorter petioles. It is not as showy as *B. staudtii,* but quite pretty in its own dainty way.

(Next: The other five.)

Growing yellow-flowered B. ficicola

John Bradley

B. ficicola Irmscher is classified in *The Thompson Begonia Guide* as being rhizomatous, having distinctive foliage with an unusual surface. It is medium-leafed, being from 3 to 6 inches. *B. ficicola* needs a contained atmosphere unless very high humidity can be maintained in the greenhouse.

This begonia was discovered by Dundas on Dec. 6, 1946, in the Cameroons (now Cameroon) at the base of Ekumbe Ndene waterfall on the river Meme. It was named as "fig-loving" for it was found growing on a *Ficus*. The original citation by Edgar Irmscher was published in *Botanische Jahrbucher* 76: 213-214. 1954.

It is a dwarf plant with green peltate leaves up to 6 inches long, having a bullate (puckered or blistered) texture. The flowers are bright yellow with a touch of orange on the back of the petals. The seed is scarce and needs humidity and almost total darkness to germinate.

Other methods of propagation follow the rhizomatous pattern: leaf, wedge, and rhizome cuttings.

I find that my plant likes to be grown in a contained atmosphere with long-fibered sphagnum moss. I water only when the mixture gets slightly dry, then fertilize with a mild fertilizer at the same time. It does not like high temperatures, preferring 60 to 70 degrees.

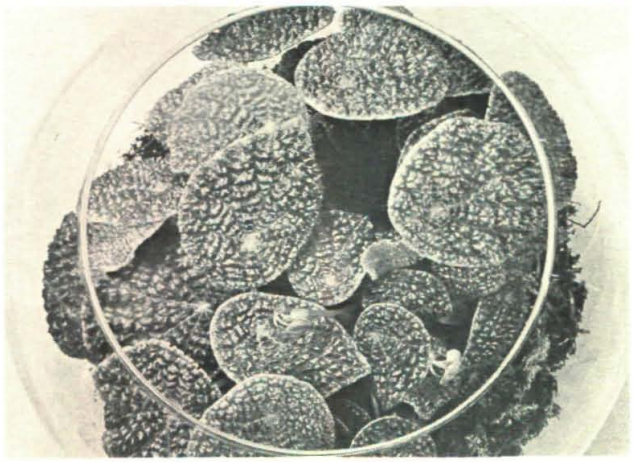
I grow mine under fluorescent lights but it will also do well in a north window with plenty of light. Be sure no direct sunlight hits it, however. Once I got this plant, it grew very slowly over the summer, then sped up after the temperature cooled in fall.

Once it adjusts to its growing area, it will come along very nicely and become a good specimen in a fairly short time.

Mike Kartuz, a commercial grower, crossed *B. ficicola* with *B. prismatocarpa* to produce B. 'Buttercup', a lovely cultivar combining the best of both parents.

John Bradley, actitve in the Hampton Branch, is a student at Delaware Valley College, P.O. Box 816, Doylestown, PA 18901. This article is adapted from one published in The Twiglette, *the branch newsletter.*

Photo/Ed and Millie Thompson from The Thompson Begonia Guide



B. ficicola **cultivated in container to meet its need for high humidity**

ROUND ROBINS/ *How to send cuttings in the bag*

Mabel Corwin

Members of round robins are very generous in sharing cuttings with each other. Sharon Nied, Texas, told how she travels with cuttings:

I put each cutting into a Ziploc bag and blow it up just enough to cushion the cutting before sealing. I write the name on the bag with a waterproof marker, then put all of the individual bags in a large, dark green or black plastic trash bag. When I travel a long distance with cuttings the dark plastic protects from the sun. I have kept cuttings for as long as a week this way, and they were still as fresh as when cut.

If they are wilted or limp, just submerge them in a pan of warm water for 2 to 24 hours and they will become firm again. The Ziploc bags can be reused. Just mark through the old name and write a new one, or set the newly potted cutting in the bag and seal.

When I get ready to harden off the rooted cuttings, I unzip the bag. Over a period of several weeks roll the bag down an inch or two at a time until it is level with the pot. I use this same method for mailing cuttings. The box is substituted for the dark trash bag.

Alternatives to baggies

Most members report using Ziploc or other plastic bags when mailing cuttings. Some like to wrap moist material such as damp cotton or sphagnum moss around the stem.

However, members living in such warm, humid areas as Florida report that this often causes the cutting to rot as it gets a "steam bath" in the warm baggies.

Lightweight plastic materials are used to cushion the cuttings. Some find bread wrappers work well. Others blow up empty Ziploc bags and use for cushioning and insulation in the bottom and top of the box.

A hose hookup

Jan Clark, North Dakota, wrote:

For watering I have a garden hose hooked up under the kitchen sink. I got a fine quality one-quarter-turn brass hose shut-off, a water breaker, and a super-fine misting nozzle. Both are metal and very well built. Result: no leaks.

With the water breaker I can water the whole collection in about 10 minutes. This puts the water exactly where I want it, with no splashing as it turns on and off. The mister does a good job and also serves to water things on slabs.

Since the faucet is on the cold line, the water is too cold. I permanently attached a brass siphon to the faucet end of the hose. I put down a bucket of hot water plus anything I want to fertilize with, and it gets drawn through the hose. I use an acidifier most of the time anyway, so this is an easy way to add it.

By having the plants on deep trays I can water thoroughly, then drain the excess water from the trays with a siphon.

It truly is a delight to have watering so convenient and versatile. The trick

Mabel Corwin, round robin director, will send a newly revised flight list and other information about joining a round robin—a packet of letters circulated among begonia lovers—if you write to her at 1119 Loma Vista Way, Vista, CA 92083.

was to get good fittings that don't leak, and to screw them down good and tight and leave them that way. The hose stays coiled in the cupboard under the sink. No fuss, no muss.

Seed germination

Dorcas Resleff, Washington, wrote:

For germinating rex seed I used crumbled Jiffy 7's or One-Steps. I soak in mild solution of fertilizer until they expand fully, then remove the net. I crumble enough to make a depth of about 1 inch all over the bottom of a plastic shoe box.

I have cut up old window glass to a size just a little larger than the shoe box for a cover. It gives better control of moisture. I dust the mix with Captan before putting in the seed and several times during the growing process.

It takes the cake

Lois Rowland, Arkansas, uses vermiculite and African violet soil mix for planting her seeds. She puts the pots on a cake stand and covers with the plastic cake cover. This method is succesful for her.

Keeping humidity up

Bob Hamm, Texas, tiered the benches in his greenhouse and put lights under them. He put capillary matting on the benches and the results were fantastic. He has all of the terrarium types growing on the lower lighted benches now, even *B. rajah*, *B. prismatocarpa*, and *B. versicolor*.

The matting cuts watering time and, most important, keeps the humidity up. The hygrometer in the greenhouse may get as low as 40%, but under the lights on the mat, it doesn't go below 55%. That drop is only during the hot mid-day when it may be 100 degrees outside with 15% humidity.

Bob made an interesting observation regarding *B. attenuata*. He grew this plant in a terrarium for three years. It had short, thick, waxy, solid green leaves the entire time, never longer than 3 inches.

He took it out of the terrarium and placed it on the matting. It started growing long, thin, spotted leaves 6 inches long. It looks like it had changed from *B. attenuata* to *B. herbacea*.

Arlene Waynick, South Carolina, feels that growing conditions certainly can be the reason that specimens of the same plant look different from each other. Age also can affect appearance.

Her branch experimented with each member growing the same plant in his or her own growing conditions. They used a rex and after eight months compared them. No two plants looked alike.

How Elda does it

Elda Haring, North Carolina, uses equal parts vermiculite, perlite, and milled sphagnum for her cuttings. She has used this mix for years, and seldom has a failure.

She waters the mix first and inserts the stem down about an inch. She first trims the leaf to a half-dollar size. She uses little 1½-inch pots or community trays with holes punched in the bottom. They should be kept constantly moist, but not wet enough to cause rotting.

Always put the stem end in water first for several hours so they will be good and crisp.

NEW CULTIVARS/ *Official international registrations*

Carrie Karegeannes and Thelma O'Reilly, nomenclature co-directors

In the citations of cultivar parents, the female (seed) parent is listed first.

Begonia 'Macho'

No. 731—*Begonia* 'Art Anthony' x 'Big Rex' 'Macho'

Rex Cultorum group; rhizomatous. A fluted double-spiral distinguishes 9″ x 10″ leaves that are silver over green with darker green veins and edges, serrate margin, and lightly pebbled surface; 12-veined; petioles 8″; stipules ½″ x ¾″. Flowers are pale pink. Originated in 1975 by Bob Cole, 18007 Topham Street, Reseda, CA 91335; first bloomed and distributed in 1979. Registered Aug. 26, 1979.

Begonia 'Lament'

No. 732—*Begonia* 'Lamont Cranston' x 'This 'N That' 'Lament'

Rex Cultorum group; rhizomatous. Nonspiraled, 9″ x 11″ leaves have a rich green center shading into a silver area flushed pink with green and silver speckles, burgundy border, crenate margin, and pebbled surface; 9-veined; petioles 11″; stipules 1½″. This cultivar is distinguished by its coloring, which is accented by a fluted leaf margin. Originated in 1975 by Bob Cole (address above), it has not bloomed to date. First distributed in 1979. Registered Aug. 26, 1979.

Begonia 'Moonkissed'

No. 733—*Begonia* 'Helen Shortt' x 'Big Boy' 'Moonkissed'

Rex Cultorum group; rhizomatous with erect stem. Nonspiraled, 8″ x 10″ leaves are burnished green at the center, shading into a speckled silver-green area, with a rustic brown border, lobed margin, and pebbled surface; 9-veined; petioles 10″-12″; stipules ½″. Flowers are pale pink. The color pattern of this cultivar is unusual. Originated in 1975 by Bob Cole (address above); first bloomed and distributed in 1979. Registered Aug. 26, 1979.

Begonia 'Sue Wilson'

No. 734—*Begonia* 'Big Boy' x Lee's #9 'Sue Wilson'

Rex Cultorum group; rhizomatous with erect stem. Leaves are silver with muted green center, highlights of splotched silver, and a red border; 7″ x 5½″, with undulate margin and smooth surface; 8-veined; 8″ petioles; 1″ stipules. Flowers are coral with pink veins, ¼″-½″, with 4 male and 5 female tepals, and grow in a cluster on a 9″ peduncle, blooming in summer. A pale lavender cast over the muted green-and-silver coloring produces an interesting cultivar. Originated in 1975 by Bob Cole (address above); first bloomed and distributed in 1979. Registered Aug. 26, 1979.

Begonia 'Whirlaround'

No. 735—*Begonia* 'Big Rex' x Lee's #9 'Whirlaround'

Rex Cultorum group; rhizomatous. Spiraled, 9½″ x 10″ leaves are purple, silver, and green, splotched green and silver on the outer areas, with a burgundy center and red trim, serrate margin, and pebbled surface; 8-veined; 8″ petioles; 1″ stipules. The color pattern gives this large spiraled cultivar a bold appearance. Originated in 1975 by Bob Cole (address above); no bloom to date; first distributed in 1979. Registered Aug. 26, 1979.

Begonia 'Calico Kew'

No. 736—*Begonia goegoensis* x *B.* species ex Kew (Sarawak species) 'Calico Kew'

Shrub-like. Large, 5″ x 9″, ovate, hunter-green leaves dappled with calico spots of copper, green, and cream are enhanced by a satiny sheen; new leaves are contrasting bright pink. Leaf margins are finely serrulate, surface is smooth and marked by 9 veins, texture is crisp; 5″

Applications to register Begonia *cultivars may be obtained from Thelma O'Reilly, 10942 Sunray Place, La Mesa, CA 92041. A $2 check or money order payable to the American Begonia Society must accompany each completed application. Photos, drawings, and/or dried specimens to accompany applications are encouraged. ABS is the International Registration Authority for* Begonia *cultivar names.*

petioles are green, sparsely hairy; stipules are green, red-ribbed and veined, unequal-sided, ¾″ x 1½″. Flowers are pink, ¼″ x ½″, with 2 male tepals (rarely 3), and are arranged in a panicle on a 5″-6″ peduncle, everblooming. Distinctive coloring marks this 2′-3′-tall, robust cultivar of unusual parentage. Originated in 1978 by Byron Martin of Logee's Greenhouses, 55 North Street, Danielson, CT 06239; first bloomed and distributed in 1979; first published in Logee's Greenhouses 1979 Supplement 1. Tested by Thelma O'Reiliy. Registered Sept. 1, 1979. Best New Commercial Introduction, ABS National Show, September 1979. Photo in *Begonian*, November 1979, p. 271.

Begonia 'Oliver Twist'

No. 737—*Begonia* 'Madame Queen' x *carrieae* 'Oliver Twist'

Rhizomatous with distinctive foliage. Ruffled, crested, 4″ x 5″, round leaves, held close together, are light brown with green markings on a smooth surface, the crested margin carrying light hairs; 7-veined; petioles green, 4″-5″. Flowers are pink, arranged in a cluster, blooming in spring. Makes a compact plant. Originated in 1978 by Logee's Greenhouses (address above); first bloomed and distributed in 1979; first published in Logee's 1979 catalog. Registered Sept. 1, 1979.

Begonia 'Misty Meadows'

No. 738—*Begonia* 'Lospe-tu' x *carrieae* 'Misty Meadows'

Rhizomatous with distinctive foliage. Hairy reniform leaves with lacerate, undulate margins are light green with white veins and red edge, narrowed at the base, 4″ x 5″; 10-veined; stipules ½″. Flowers are white, ¾″, with 2 male tepals, and are arranged in a cluster on a 24″ peduncle, blooming in spring. The furry, crested, meadow-green leaves rise majestically from the rhizome. Originated in 1978 by Logee's Greenhouses (address above); first bloomed and distributed in 1979; first published in Logee's 1979 catalog. Registered Sept. 1, 1979.

Begonia 'Iroquois'

No. 739—*Begonia* unknown x unknown 'Iroquois' (synonym 'Colorvision' hybrid)

Rex Cultorum group; rhizomatous. Long, feather-shaped leaves are rose-pink and silver with brownish-maroon center zone and brown-and-green edges, 4½″ x 2″, with a doubly serrate margin and smooth surface; 6-veined; petioles 1½″; stipules ½″ and reddish brown. Originated in 1968 by Logee's Greenhouses (address above), this begonia has never bloomed. First distributed in 1977; first published in Logee's 1977 catalog. Registered Sept. 1, 1979.

It's a survey on begonia propagation

Barbara Rogers and Ben Herman of the Desert Begonia Branch in Arizona have undertaken an independent project of compiling information on experiences in begonia propagation, and would like to hear from you on the following questions:

1. Are you satisfied with the growth of your seedlings and/or leaf cuttings after transplanting?

2. What soil medium do you use for transplanting?

3. What is your fertilizing program for these young plants?

4. What environment do they enter at this time (light, temperature, humidity, terrarium, greenhouse, etc.)?

5. Do you succeed more at one time of year than another?

6. What containers do you use for the first transplanting?

7. Are species more successful for you than hybrids, or vice versa?

8. Do you find differences in growth rates between leaf-propagated rex begonias and leaf-propagated rhizomatous begonias?

9. How long in general does it take you to produce a nice, full junior plant from seed or leaf cutting—the type you would want to purchase?

Please send your survey answers to Barbara Rogers, 1200 Christmas Tree Ln., Pearce, AZ 85625 by March 15. The results will be reported in *The Begonian*.

More New Guinea expedition

Continued from page 9

der were 26, 23, and 18 collections.

The frequency with which *Begonia* occur at the stream margin habitat is curious. In the tropical rain forest, the water level in streams is subject to extreme fluctuation. Frequent rain showers cause the level of water to rise and fall, creating an environmental variable that has a significant bearing on the vegetation growing along the margins of the stream. Because there is normally such an intricate relationship between the genetic system of organisms and the habitats in which the organisms live, it would be important to determine whether species of *Begonia* show any interesting adaptations to the stream margin habitat.

From my experience collecting *Begonia* in both the New World and the Old World, it appears that begonias have a preference for disturbed habitats, as which the stream margin qualifies. A disturbed habitat is one that is subject to frequent alterations of one form or another. Another habitat where begonias are found quite often is along roadsides, often restricted to the very edge of the road, where more sunlight is found. The roadside habitats are subject to periodic highway maintenance; men come along and cut the vegetation down because it begins to grow out into the road. Some begonias thus tend to be weeds and cause problems. Other disturbed habitats where I've encountered *Begonia* include archeological ruins, landslide scars, cow pastures, along foot trails in the mountains, and recently grown secondary forest.

Unfortunately, the begonias from New Guinea like their disturbed habitats so much that they don't want to be disturbed; they often refuse to grow in cultivation. Of the 86 collections made in Papua New Guinea, I sent back around 56, as shown in Table 1. I'm not sure of the survival rate but my estimate is less than 10% of the "species" survived.

A number of factors were responsible: 1. The slowness in getting material to the United States. Not only was transport time two weeks from Papua New Guinea to the U.S., but there was a lag time from collection of the material to the post office and obtaining of a permit to ship the live specimens. A permit had to be obtained from the director of agriculture in Port Moresby and I was out in the bush. Getting from the bush to a place from where I could send a letter involved several days. This applies to cuttings, not seed. 2. The begonias grow in soil possibly having particular micro-organisms. Upon removal of these organisms, the plants can no longer grow successfully. 3. A combination of other

Please turn to page 24

TABLE 1—Begoniaceae activities during 1977-78 expedition to Papua New Guinea

Begoniaceae collections	86
Approximate number of duplicates	440
"Species" of *Begonia*	45
"Species" of *Symbegonia*	7
Live specimens shipped	56
Distribution grids plotted: *Begonia*	14
Distribution grids plotted: *Symbegonia*	2
Approximate number of "pollinators": *Begonia*	120
Approximate number of "pollinators": *Symbegonia*	30
Height measurements in field: *Begonia*	918
Height measurements in field: *Symbegonia*	222
Determination of Begoniaceae specimens in Lae Herbarium	16
Photographs: Begoniaceae closeups	60
Species examined for stomata observation	14

QUESTION BOX/ *Is it time to force dormancy?*

Elda Haring

Question: My *B. sutherlandii* is still producing flowers but there are no bulbils yet. Should I force it to go dormant?

Answer: No, keep it growing as long as it looks good. When it is ready to rest it will start to lose a few leaves and stems at a time. I let my own grow until all the stems fall off, then keep dry until new growth begins in spring.

Although I have grown *B. sutherlandii* for years, mine has never produced bulbils even under lights. I assume my growing season is too short for the plant to produce these bulbils. Many that I have seen growing in plastic greenhouses on the West Coast do produce bulbils. Try taking some cuttings to grow under your lights this winter.

Question: What do translucent spots in leaves mean? My *B. conchifolia* seems healthy but every mature leaf develops spots parallel to the rim of the leaf not noticeable from the top unless the leaf is held up to the light. From the underside they look like shiny bruised areas.

Answer: I have had this problem on some of my begonias and have found that it was due to keeping the plant too moist. When those particular ones are allowed to dry out completely before watering, the problem disappeared.

Question: I have trouble with semps. They bloom all summer on a cool porch then, when the weather gets cold, I bring them into a 70-degree room at an east window but by midwinter they die off. What am I doing wrong?

Answer: The plant should have been brought inside no later than Sept. 10 where you live to accustom it to the indoors before heat is turned on.

As it had been blooming all summer, it should have been cut back at least halfway to encourage growth of new shoots.

In winter, give as much sun as possible. Do not keep too wet for this will encourage rot. Let the soil in the pot dry out before re-watering. Expect new flowers toward the end of February when the days where you live will be getting longer and sun much stronger.

Question: I grew a cutting of one of my begonias in a small terrarium with an opening at the top. When it got too tall I removed it and potted it, but it suffered badly. Why did this happen?

Answer: The plant growing in the partially closed container was rather soft, having had the protection of the container and additional humidity.

Next time, when removing a plant from the terrarium for repotting, place pot and plant in a plastic bag with the top of the bag left open, gradually rolling down the bag until the plant has become accustomed to the cooler temperatures and lower humidity in the room.

Question: I have a nice plant of the rhizomatous *B.* 'Cleopatra'. When does it bloom?

Answer: *B.* 'Cleopatra' blooms in winter but it needs long nights to ini-

Send questions about begonia growing to Elda Haring, P.O. Box 236, Flat Rock, NC 28731. She'll mail you her reply promptly.

tiate flower buds. Keep it in a room where there will be no artificial light at night from October to February when it should be in flower, at which time you can bring it into your dining or living room window to enjoy.

Question: I have several rex begonias, *B.* 'Merry Christmas', *B.* 'Gorgeous George', and *B.* 'Dark Carnot'. They were given to me in 6-inch pots with saucers attached and appear to be planted in a bark mix. They are in an east window. The room is kept at about 70 degrees in winter. How do I care for these? Should I repot to a larger pot? When will they bloom?

Answer: *These plants should not* need repotting for quite some time. As they are in a bark mix, they probably should be fed a very dilute solution of water-soluble fertilizer each time they are watered following directions on the container for "constant feeding."

Do not keep rexes wet or they may rot. Some varieties will lose leaves and go dormant in winter. If this happens, keep in a fairly bright spot and quite on the dry side. When they show new shoots in spring, feed and water them in the usual way.

Although rexes are grown for their foliage, many of them do bloom at various times of the year depending on the variety.

More New Guinea expedition

Continued from page 22

habitat conditions like light, temperature, relative humidity, and pH. I suspect these conditions can be simulated closely enough to be no problem.

In due time I will write articles regarding specific collecting experiences from Papua New Guinea. My sincere thanks are expressed to the American Begonia Society and everyone else who contributed financial assistance to this expedition.

I hope ABS will continue to support begonia-collecting expeditions. It will be necessary to determine the best method for exporting the horticultural material. My best wishes to people who are growing some of the New Guinea *Begonia*; I understand they are very difficult.

More B. 'Universe'

Continued from page 5

the container is filled with roots. Then the plant is potted to a 4-inch pot using my favorite potting mix. The young leaves will be more rounded than when the plant reaches specimen or show size.

As with most rhizomatous begonias, when it is in active growth, *B.* 'Universe' appreciates a lightly moist soil at all times and regular feeding throughout the growing season. In winter keep it slightly dry.

This charming begonia does not rot easily if overwatered nor will it wilt quickly if kept too dry, but is at its most handsome state if cared for regularly and properly.

It will respond to root pruning in spring if you wish to keep it in the same size pot or, if you desire a specimen or show plant, shift to the next larger size as the roots fill the pot until it has attained the desired size.

The Southwest Begonia Growers Association will host its annual Southwest Begonia Growers Get-Together April 17-20 in Houston.

Dr. Fred Barkley, the renowned botanist and begonia grower, will describe his trips to study begonias in their native habitat, and Winkey Woodriff will discuss the latest Woodriff family hybrids from Fairyland Begonia Garden in McKinleyville, Calif.

The Get-Together will take place at the Houston Airport Hilton Inn. The show will emphasize begonias but also include gesneriads and ferns for the first time.

For details and registration forms, write to Get-Together Chairman Selma McGough, 1008 Mitchell Rd., Houston, TX 77037.

ABS grant to Scott Hoover

ABS has awarded a $400 grant to plant explorer Scott Hoover to help finance a collecting trip to South America.

Directors voted to make the grant after research director Millie Thompson forwarded his request to the board. The grant includes the requirement that plant material and seeds collected be shared with the Clayton M. Kelly Seed Fund and the ABS research department's Grow and Study project.

Monterey cancels branch dues

The Monterey Bay Branch has come up with a direct way of helping its members meet the recent increase in ABS dues to $10: The branch eliminated its dues requirement.

To replace the income from dues, Monterey Bay members will put in some extra effort at a spring plant sale.

Pat Maley takes national office

Pat Maley, president of the San Miguel Branch, is the new co-chairman of the school for judges. Directors appointed her on the request of chairman Margaret Lee.

Margaret said she needed help revising the judging course to bring it into line with *The Thompson Begonia Guide* show supplement—recently adopted as the ABS show schedule—and to make the course more readable and understandable.

Kit Jeans new awards chairman

Kit Jeans of New Johnsonville, Tenn., has been appointed chairman of the ABS awards committee. She succeeds Thelma O'Reilly, who retired after three years in the position.

President Nate Randall nominated Kit for the post and directors ratified the choice unanimously.

Potomac Branch chips in

Members of the Potomac Branch have contributed $25 to ABS "to help with expenses."

The branch voted to make the donation because of the society's stressed financial condition earlier this year.

A public begonia garden

The San Miguel Branch is planting a begonia garden within the walled garden of Quail Gardens, a county park in Encinitas, Calif.

Branch member Dorothy Behrends is the prime mover, having donated many plants to start the garden. Marge and Paul Lee and Pat and Dennis Maley also are providing plants.

Constitution revisions pass

Twelve articles to the ABS constitution and bylaws have been revised following member approval in a November election. The vote was 24-0 to adopt revisions of 10 articles. The tally was 23-1 for each of two provisions—to permit a member to hold more than one branch office simultaneously and to require the annual convention and show to be held between Aug. 20 and Oct. 1 each year.

In Memoriam: Dorothy Bell

Dorothy Bell, a charter member of the Monterey Bay Branch, has died of cancer. She was an enthusiastic gardener who also loved African violets.

THE BOARD/ *ABS directors' meeting Oct. 15, 1979*

The meeting was called to order at 8 p.m. by President Nathan Randall at Fullerton Savings & Loan Assn., Anaheim, Calif.

Correspondence was read from Tatsuo Suzuki, chairman of the board of directors of Japan Begonia Society, requesting a message from our president to be included in a book being published by the Japan Begonia Society, and from the Public Service Lamp Corp., requesting a list of branch presidents and secretaries with their addresses.

Gilbert Estrada moved appointment of Clair Christensen as parliamentarian, seconded by Muriel Perz. Carried.

Finance Committee Chairman Chuck Richardson reported the committee met Oct. 5 with the editors to work out a 1979-80 fiscal year ABS budget. Estimated disbursements totaled $36,433. Chuck Anderson moved approval, seconded by Bill Walton. After discussion, Walter Barnett moved to defer action until enough copies were available for the entire board. By show of hands, the motion to defer failed 7-8. Original motion carried.

Treasurer Eleanor Calkins' report covered August and September. August balance on hand $3,976.19, receipts of $1,606.33, disbursements of $1,181.63, leaving balance Aug. 31 of $4,400.89. September balance on hand $4,400, receipts of $1,741.32, disbursements of $682.92, leaving balance Sept. 30 of $5,459.29.

Back Issue Begonian Sales Chairman Katharine Alberti reported no activity this month, and moved to sell back issues from 1950 forward for $5 a year to reduce inventory. Seconded by Gil Estrada. Carried.

Business Manager Bill Walton moved to secure a monthly computer list of delinquent members for Duane Campbell, members-at-large director, so Duane could try to get them to renew their memberships. Cost would be $15 a month. Chuck Anderson seconded the motion. Carried.

Nomenclature co-directors Carrie Karegeannes and Thelma O'Reilly reported 19 new cultivars registered in September.

Research Director Millie Thompson asked for appointment of a co-director to handle grant requests. Gil Estrada moved to name Corliss Engle as co-director, seconded by Walter Barnett. Carried. Millie also recommended ABS support of Scott Hoover's plant-collecting expedition to South America. Some seeds he collects will be given to the ABS Seed Fund and the research department's Grow and Study project. Walter Barnett moved to grant $400, seconded by Gil Estrada. Carried.

Darlene Fuentes reported on the western regional show. The show was well received by the public and Glendale Galleria merchants. The show took in $3,952, spent $3,534, leaving a balance to ABS of $418. Four new members were recruited and we have 36 more names as recruitment prospects.

Chuck Anderson, co-editor, reported that the October *Begonian* was mailed later than usual so it could include some coverage of the national convention and results of the officer election. The November issue will contain the proposed Constitution revisions. In the future, minutes will be condensed to save space.

Gil Estrada moved to rescind the dates Sept. 12-14 for the 1980 national convention and show, and set new dates of Sept. 5-7, seconded by Chuck Anderson. Carried.

President Randall displayed a 1980 calendar illustrated with begonia sketches being published by Kit Jeans to benefit the ABS treasury. Information on the calendars is advertised in *The Begonian*.

The Garden Grove Branch's request for approval of a life membership for Doug and Goldie Frost was received. Gil Estrada moved approval, seconded by George Allison. Carried.

Walter and Virginia Barnett agreed to permit use of their address as the official address of the society, as in the recent past.

The January board meeting will be held at 7:30 p.m. Monday, Jan. 21, at Fullerton Savings and Loan, Anaheim.

ABS SERVICES

These services are available to all ABS members. For names and addresses of department heads and other officers, see inside front cover.

AT-LARGE MEMBERS—Services for members who don't belong to branches are handled by the members-at-large director. Contact him for details. If you are interested in finding a branch or starting one in your area, contact the branch relations director for help.

THE BEGONIAN—The monthly journal of the society publishes how-to articles, scientific information, and ABS news. Articles on a member's personal experiences with begonias are welcomed, as are black-and-white photos of begonias and color slides suitable for use on the cover. Contact the editors. Copies of the Begonian more than a year old are available from the back issue sales chairman at 75 cents each. A full year is $6.50 for any year in the 1940s, $5 for any year from 1950 onward. Back issues less than a year old are ordered from the membership secretary.

BOOKSTORE—Books on begonias and related subjects can be purchased mail-order from the bookstore librarian. Contact him for a list of books available. The bookstore also sells reproductions of antique begonia prints.

JUDGING COURSE—The judging school director offers a course by mail with which you can learn to become an accredited begonia show judge. Also available are a booklet on point scoring, information on fuchsia and fern judging, and other requirements to become a judge.

LIBRARY—Books about begonias and gardening may be borrowed by mail from the lending library. Contact the librarian for a list of books and the procedure.

NOMENCLATURE — The nomenclature department monitors newly published findings on begonia names as well as handling official international registration of new begonia cultivars. Registrations are published in The Begonian.

RESEARCH—The research department conducts a Grow and Study project in which members experiment with various begonias and compile their findings. The department also has other activities, including the review of requests for ABS backing of outside projects. For details, contact a co-director.

ROUND ROBINS—Members exchange information about begonias and their culture through a packet of letters which circulates among a small group of growers. There are dozens of these packets—called flights—on many specialized subjects. To join one or more, contact the round robin director.

SEED FUND—The Clayton M. Kelly Seed Fund offers seeds of begonia species and cultivars by mail. New offerings are listed in The Begonian.

SLIDE LIBRARY—A series of slide shows on begonias and begonia growing can be borrowed by mail for showing at meetings and seminars. New shows are under preparation. Contact the slide librarian for fee information.

BEGONIAN MINI-ADS

Mini-ads are $1 per line per insertion with a minimum of $4. A line is about 36 characters. Payment must accompany order. Send to Pam Mundell, advertising manager, 2324 Connie Dr., Sacramento, CA 95815.

Begonias. Blue Ribbon Winners. Odd. Rare. Unusual. Price list 50¢ or stamps. Begonia Paradise Gardens, 9471 Dana Rd., Cutler Ridge, FL 33157. (305) 251-5836.

Violets - Begonias - Episcias
Cuttings only. Send 35¢ for list.
Wilson's Greenhouse, Route 1
Box 165-4 Ozark, MO 65721

Exhibition Manual. Optional supplement of The Thompson Begonia Guide for subscribers and non-subscribers, 100 pages. Price $4.95, optional binder $3.50, including packaging and shipping. N.Y. residents add state tax. Thompson, P.O. Drawer PP, Southampton, NY 11968.

Something for everyone—begonias, cactus, succulents, tropicals. Wholesale and Retail. No list—No mail order. Harvey's, 611 So. 8th St. Adel, Iowa 50003.

Begonias. Featuring Wally Wagner hybrids, gesneriads, miniatures for light gardens. List 50¢. Pat Morrison/Jim Heffner, 5305 S.W. Hamilton St., Portland, OR 97221.

The Plant Shop's Botanical Gardens, 18007 Topham, Reseda, CA 91335, (213) 881-4831—Welcome Wed thru Sun, 10 am-6 pm. Progressive catalog, $2.00, refunded with first order. Poster of 18 species staghorns, $4.00.

Woodriff's Fairyland Begonia Hybrids. List 25¢. Visitors welcome. Leslie & Winkey Woodriff, Fairyland Begonia & Lily Garden, 1100 Griffith Rd., McKinleyville, CA 95521. (707) 839-3034.

American Begonia Society
826 Santa Rita Ave.
Los Altos, CA 94022

Address correction requested

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